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Ehrlich et al.

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(54) **METHODS AND SYSTEMS OF
PRIORITIZING TREATMENTS,
VACCINATION, TESTING AND/OR
ACTIVITIES WHILE PROTECTING THE
PRIVACY OF INDIVIDUALS**

H04W 12/069; H04W 4/80; G06N 7/005;
G08B 21/02; G07C 9/28; G07C 9/22;
G06F 1/163; G06F 3/14; G09G 5/36;
(Continued)

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(56) **References Cited**

U.S. PATENT DOCUMENTS

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7,705,723 B2 4/2010 Kahn et al.
8,645,538 B2 2/2014 Pan
(Continued)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
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OTHER PUBLICATIONS

Office Action and Search Report dated Dec. 17, 2020 From the
Israel Patent Office Re. Application No. 276648. (9 Pages.).

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(Continued)

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(57) **ABSTRACT**

(30) **Foreign Application Priority Data**

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System and methods for anonymously selecting subjects for
treatment against an infectious disease caused by a patho-
gen. The system comprises a plurality of electronic devices
comprising instructions to generate an ID and, when in
proximity of another such electronic device, one or both
electronic devices transmit/receive the ID to/from the other
electronic device. Then, a score is generated based on a
plurality of such received IDs. Additionally, based on infor-
mation received from a server, relevant treatment instruc-
tions are displayed to the subjects based on the received
information and the score. The server comprises instructions
for sending to the plurality of electronic devices the infor-
mation to be displayed with the relevant treatment instruc-
tions, additionally the server and/or the electronic devices
comprise instructions to generate a prediction of likelihood
of a subject transmitting the pathogen, based on the score of
the subject.

(51) **Int. Cl.**
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G16H 50/80 (2018.01)
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(52) **U.S. Cl.**
CPC **G16H 50/80** (2018.01); **G06N 7/005**
(2013.01); **G16H 50/30** (2018.01); **H04W**
4/023 (2013.01); **H04W 4/029** (2018.02)

(58) **Field of Classification Search**
CPC G16H 50/80; G16H 50/30; G16H 15/00;
G16H 10/60; H04W 4/023; H04W 4/029;

37 Claims, 12 Drawing Sheets

